

A Comparison of Online Panels with GSS and ANES Data

Elizabeth Zack and John Kennedy

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INDIANA UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

Bloomington

Background

- Researchers increasingly using online non-probability samples
 - RDD response rates dropping
 - Cheaper
 - Quicker

Research Question:

- Are online non-probability samples an acceptable alternative to traditional probability samples? Do they provide “good” or “useful” data?

Past Research

- Experiments
 - Online non-probability samples produce high quality experimental data (e.g., Berinsky et al. 2012; Leeper & Mullinix 2014; Mullinix et al. 2013; Weinberg et al. 2014)
- Good for experiments but for public opinion research...?
 - MTurk samples are younger, higher levels of education, lower income, and more liberal than the U.S. population (Paolacci et al. 2010)
 - AAPOR Task Force on Online Panels (2010)

Current Study

- Study purpose
- Common ?s from GSS and ANES, fielded on Mechanical Turk (MTurk) and Qualtrics
- MTurk
 - Opt-in online platform
 - Requesters post & workers complete tasks for pay

Current Study, continued

- Test distributions
- Multivariate relationships between basic demographics and public opinion items
- Same story?

Data and Methods

- 2014 GSS (n= 1,000 to 2,300)
- 2013 ANES (n=700 to 750)
- 2015 MTurk (n=250 to 350)
- 2015 Qualtrics Panel (n=450 to 550)

Survey Questions

- **Dependent Variables**
 - Health and Well Being
 - Science
 - Education
 - Family
 - Government
 - Policy Preferences
 - Racial Attitudes
 - Knowledge
- **Independent Variables**
 - Demographics (gender, age, etc.)

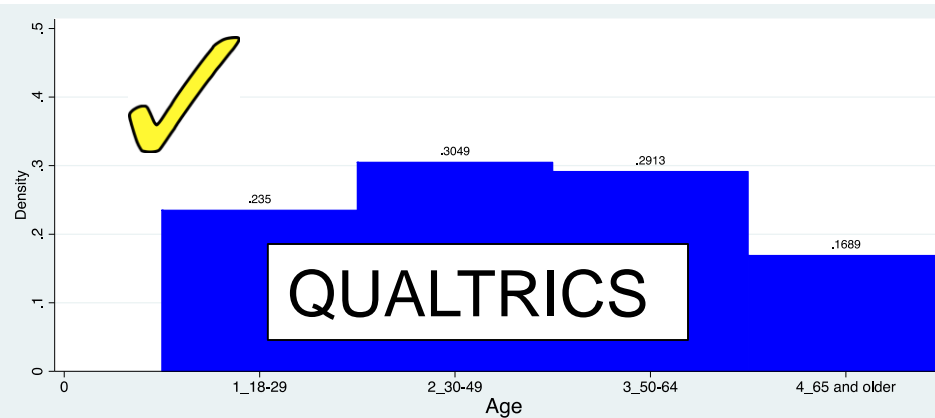
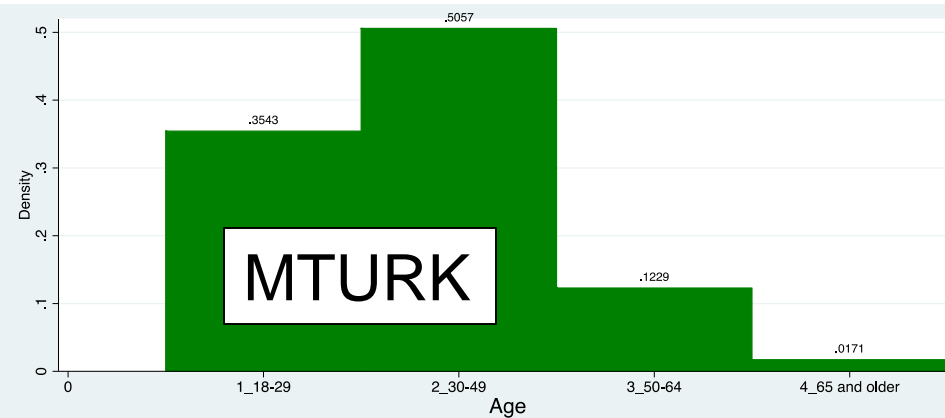
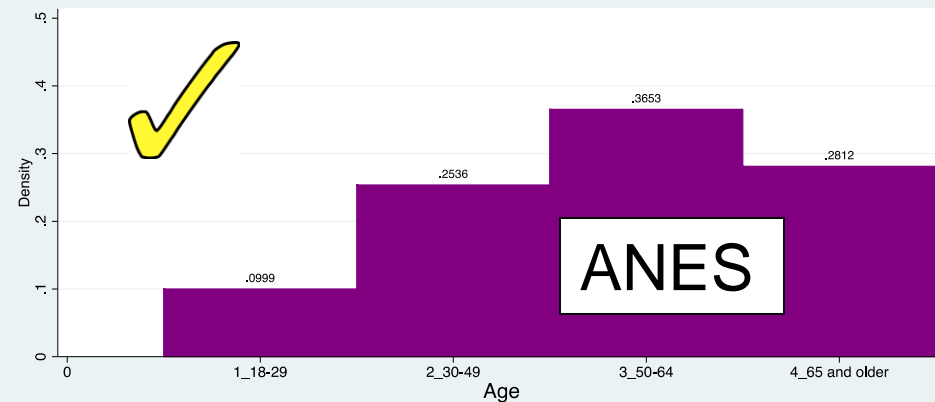
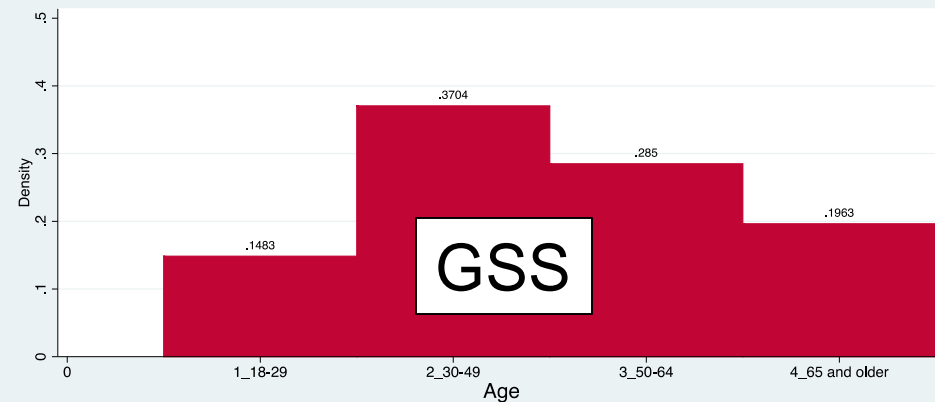
Analytic Strategy

- Chi square tests (distributions)
- Logistic and multinomial logistic regressions (relationship between basic demographics and outcome variables)

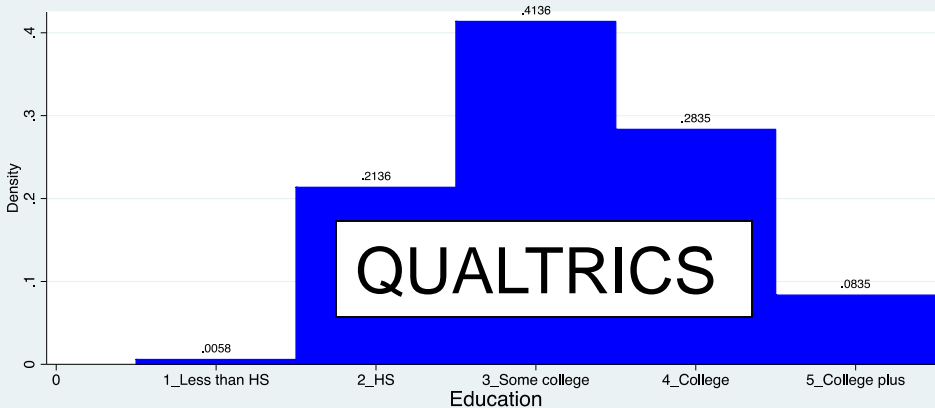
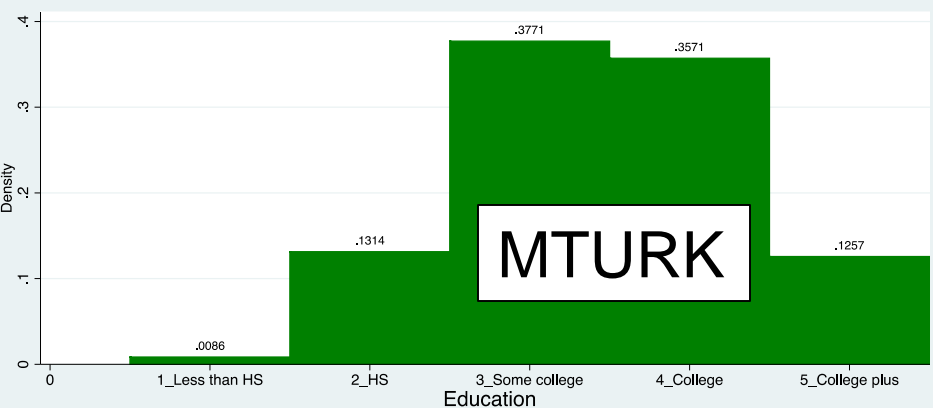
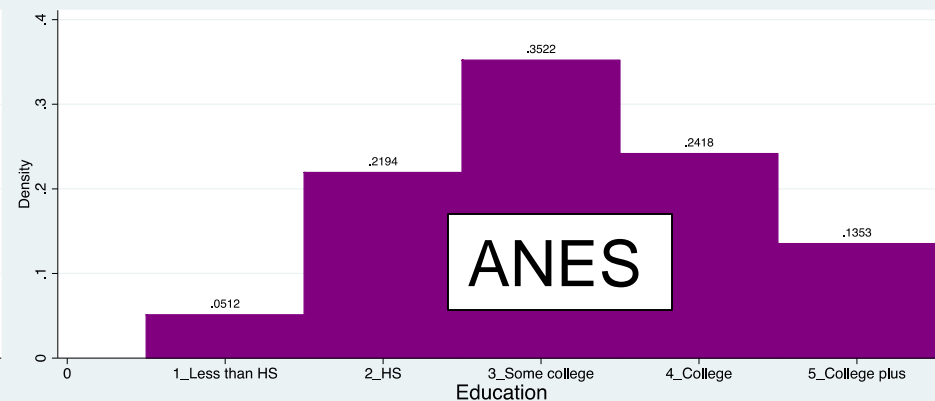
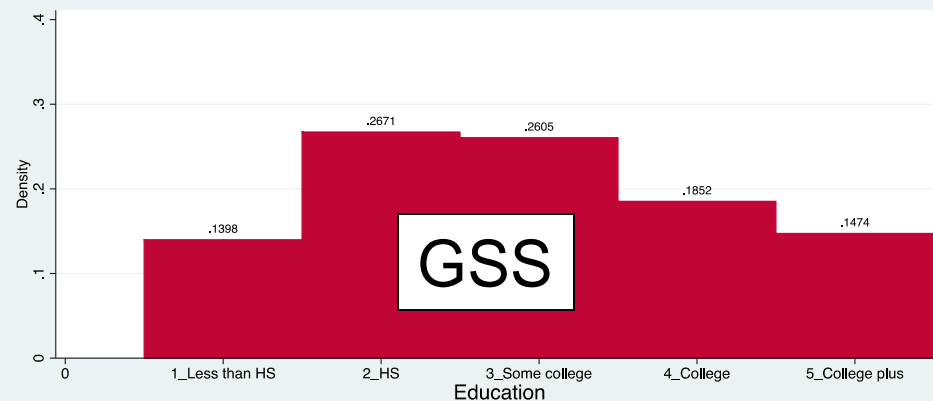
Results: Demographic Distributions

- **MTurk:** differs from GSS & ANES on all demographic variables except race (not sig. different from ANES)
 - Younger, more educated, more liberal, more male
- **Qualtrics:** similar to GSS/ANES on gender, & similar to ANES on age & race
- So: Qualtrics closer match on demographics

Age



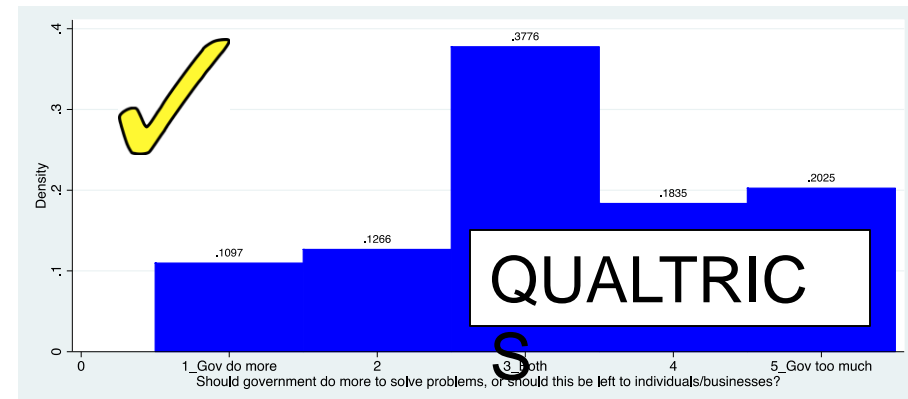
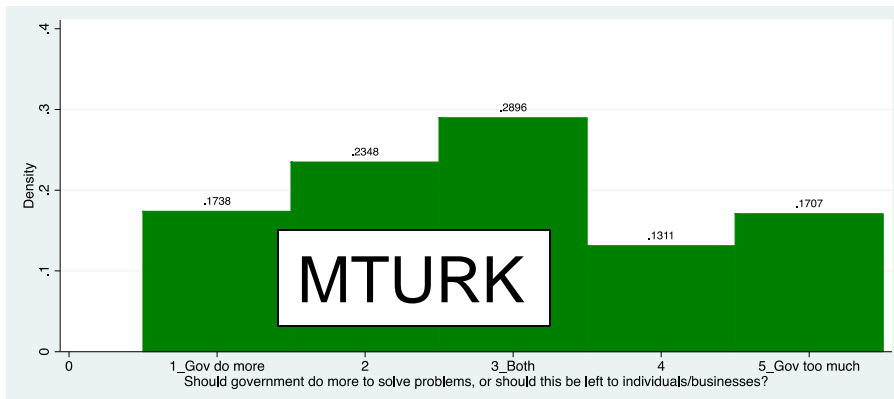
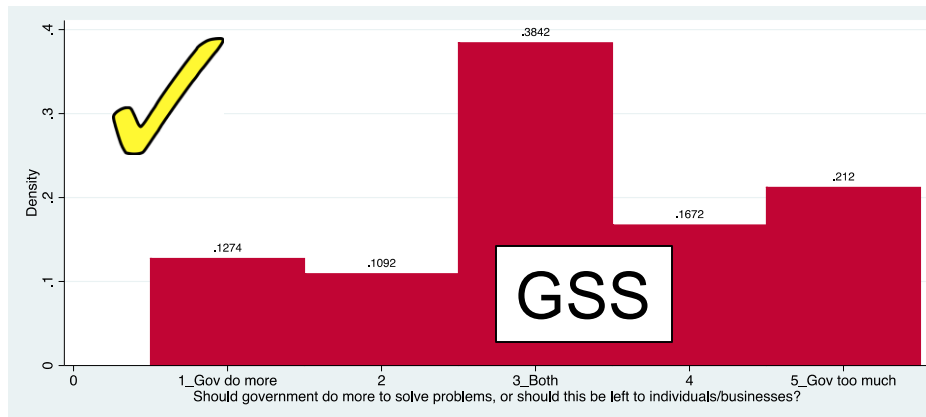
Education



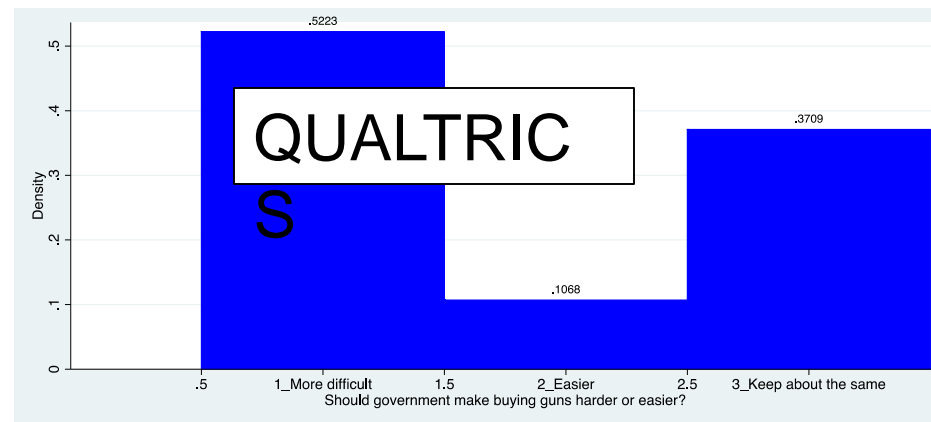
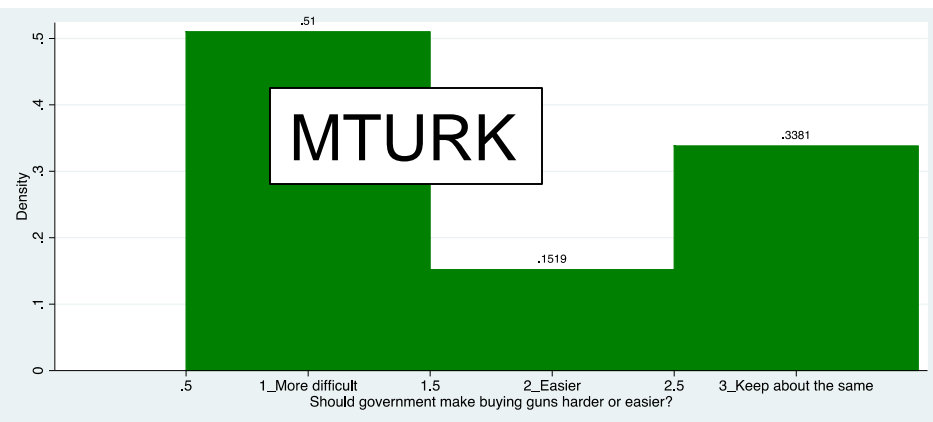
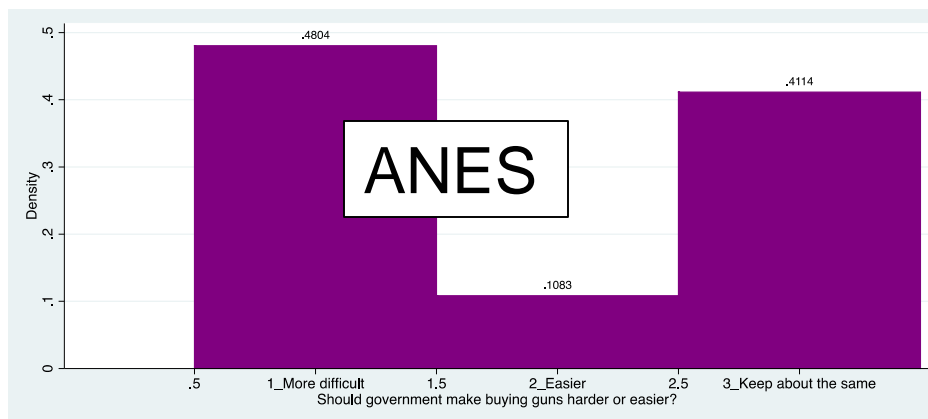
Results: Outcome Variable Distributions

- **MTurk:** sig. differs from GSS & ANES on all variables but *helpful* (14/15)
- **Qualtrics:** distributions **do not differ** from GSS & ANES on *helpful, cappun, courts, govrole* (11/15)
- Qualtrics much more like GSS/ANES than Mturk is (except on well-being variables)

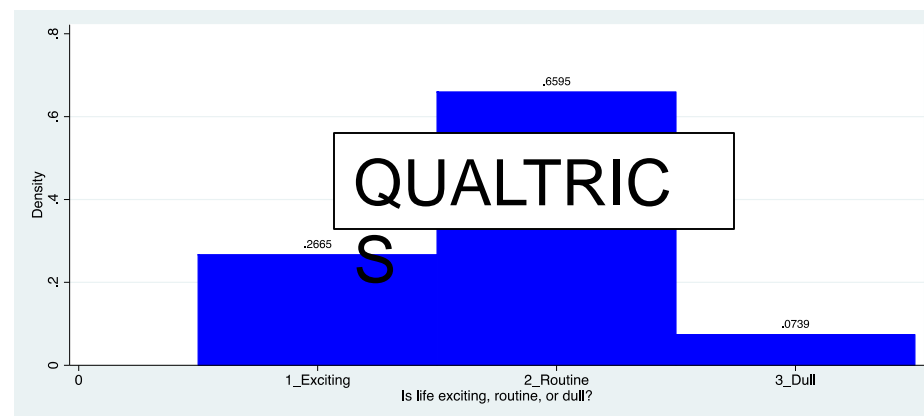
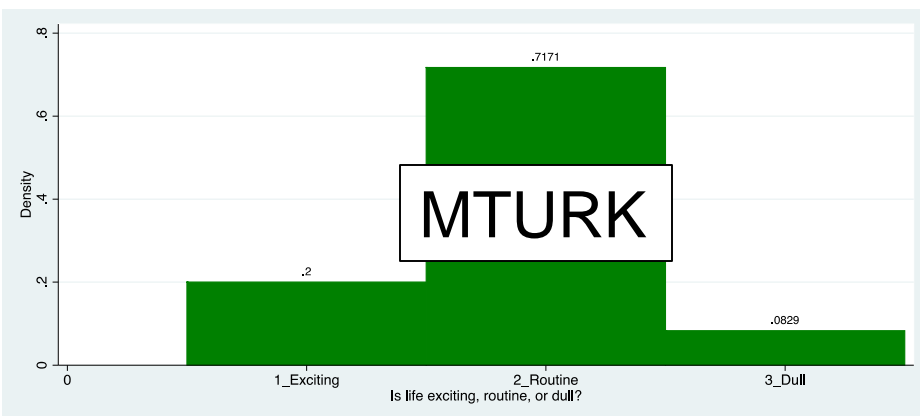
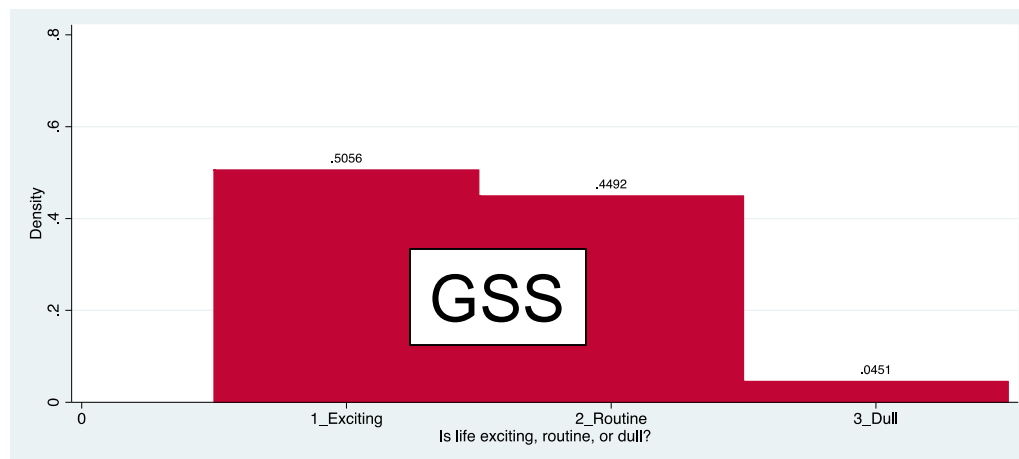
Should government do more to solve country's problems, or should this be left to individuals/private businesses?



Should government make buying guns harder or easier?



Is life exciting, routine, or dull?



Regressions

- Regressed outcome vars on basic demographics (age, race, etc.)
- Results: Associations between basic demographic variables and outcome variables differ by sample
- Neither Qualtrics nor MTurk performed better than the other

Significant Predictors: Support for Capital Punishment

	Gender	Age	Race	Educ	Marital	Income	Party ID	Pol. Views
GSS	★		★	★			★	★
MTurk						★	★	★
Qualtrics			★			★		

Significant Predictors: Should Buying Guns Be Easier?

	Gender	Age	Race	Educ	Marital	Income	Party ID	Pol. Views
ANES	★	★	★	★			★	★
MTurk							★	★
Qualtrics	★	★	★	★		★	★	★

MTurk & Qualtrics both differed from ANES/GSS, but...

- Directions of odds ratios same as GSS/ANES
- Random variation? (GSS 2012 & GSS 2014 also differed...)
- More research needed

Discussion

- Qualtrics is (slightly) better than Mturk for point estimates (except on Well Being variables)
- Neither Qualtrics nor MTurk performed well in multivariate analysis (but maybe random variation? Also, directions of associations do not differ.)
- Limitations: time, mode, & question order

Next Steps

- Compare to nationally representative study being fielded at IU now, and several other online samples.

Contact Information:

- **John Kennedy**
Email: kennedyj@indiana.edu
- **Elizabeth Zack**
Email: eszack@indiana.edu